

Remarks

We have amended the CROSS REFERENCE TO RELATED APPLICATION section in the specification per the Examiner's helpful suggestion.

Regarding the rejection of claims 48-53 and 55-58 under 35 U.S.C. §112, second paragraph, we respectfully submit that the specification clearly establishes the relationship between "atmosphere" and "ambient air" in the application, including claim 48. "Ambient air" is the "portion of the atmosphere that is drawn or forced towards the outer surface of the coated substrate" (see page 5, lines 12-13 of the specification). The specification expressly defines "atmosphere" as "the mass of air surrounding the earth" (see page 5, lines 10-11). In light of these definitions set forth in the specification, we respectfully request that the §112 rejection of the pending claims be reconsidered and withdrawn.

Turning to the merits of the invention, Applicants have discovered and claimed a unique device for treating the atmosphere. The device utilizes a catalyzed outer surface of a motor vehicle component to convert atmospheric pollutants to less harmful materials. Importantly, a porous yet protective layer of carbon overcoats the catalyst. The porous carbon overcoat protects the underlying catalyst from contaminants encountered during operation of a motor vehicle while still allowing the atmospheric pollutants to be converted to benign substances by the catalyst to contact the catalyst, thereby improving catalyst performance (see the specification on page 3, line 27 to page 4, line 6; page 8, lines 23-30, and elsewhere).

We respectfully submit that the claims 48-53 and 56-58 define an invention that is non-obvious over WO 98/02235 (hereinafter "Dettling") in view of JP 52-122290 (hereinafter "JP '290"). The primary reference Dettling, which teaches the use of a *repellent* overcoat material to protect the underlying catalyst from roadway contaminants, and the secondary reference JP '290, which teaches the use of an *adsorptive* overcoat material to protect the underlying catalyst from combustion exhaust gas contaminants, fail to provide the requisite incentive for their combination to one of ordinary skill in the art as hypothetically proposed in the present Office action.

The primary reference Dettling has been cited as teaching an apparatus like that presently claimed absent the porous carbon overcoat. However, Dettling does teach the use of protective

overcoats: Dettling discloses the use of repellent plastic materials, e.g. Teflon, as overcoats to protect the catalyst from chemicals, dirt and salts encountered by a radiator during operation of a motor vehicle (see the last paragraph on page 15). JP '290 teaches the use of activated carbon, an adsorptive material, as an overcoat layer to prevent poisoning of the underlying catalyst layer from exhaust gas contaminants from a combustion engine. As Dettling seeks to *repel* particulate and liquid contaminants emanating from roadways with the non-adsorptive plastic overcoat, there would be no incentive for one of ordinary skill in the art to substitute the activated carbon *adsorptive* material taught in JP '290 for use in exhaust gas treatment systems.

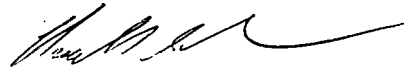
We respectfully submit that claim 55 is non-obvious over Dettling in view of JP '290 and further in view of U.S. Patent No. 6,190,627 for the same reasons presented above. Moreover, the present application claims priority to the application which resulted in U.S. 6,190,627, thus disqualifying U.S. 6,190,627 as prior art against the present application.

We acknowledge the nonstatutory double patenting rejection of claims 48-53 and 55-58 over claims 9-19 of U.S. Patent No. 6,190,627. We intend to overcome the rejection by filing a terminal disclaimer upon receiving indication that at least one pending claim would be otherwise allowable. We take this approach to avoid the unnecessary payment of a terminal disclaimer fee.

In light of the foregoing, we respectfully submit that the pending claims define a novel and non-obvious invention that fully merits patent protection. We therefore respectfully request that the entire application be allowed at an early date.

This response is being filed after four months but before five months after the Office action mailed on October 14, 2004. Authorization to charge the fee required for a two-month extension for response, as well as any other fee deemed to be required, to deposit Account No. 05-1070 is hereby granted.

Respectfully submitted,



Russell G. Lindenfeldar
Reg. No. 39,750

ENGELHARD CORPORATION
101 Wood Avenue
PO Box 770
Iselin, NJ 08830
Tel. 732-205-7125